Leadership, Commitment & Accountability
The Driver of Safety Performance

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Operations Integrity to Deliver Process Safety and Loss Management

Oil, Gas and Petrochemical businesses carry inherent risk

Consider the following major incidents:

- **Bhopal**
  - 2,500 fatalities

- **Phillips Petroleum polyethylene plant explosion**
  - 23 fatalities, $1.5B loss

- **Exxon Valdez**
  - Oil spill into Prince William Sound

- **BP Texas City refinery explosion**
  - 15 fatalities, > $1.0B loss

Industry investigations show human factors to be a common, fundamental root cause behind incidents.
Operations Integrity to Deliver Process Safety and Loss Management

Long-standing concern by IOL for Safety, Health and Environment

- **Safety is a VALUE ... Not a Priority**
- Performance improvement requires Leadership for break through results

Strong SHE performance makes good business sense

- Is your “License to Operate” the business
- Translates into improved productivity, quality ...
  Resulting in superior returns
What is “Operations Integrity”

Imperial’s Operations Integrity Management System (OIMS)
- Disciplined framework to ensure safe and reliable operations
- View work as a process to achieve sustainable results

OIMS sets out the Roles, Responsibilities and Expectations
- Common for all business units, and all employees

Goal is “Operational Excellence”
- “Flawless” SH&E performance
Operations Integrity - 5 Key Attributes

Scope and Objectives
- Systems purpose and desired outcomes
- What is and is not covered

Processes and Procedures
- Key tasks to be executed
- Links the tasks to results

Accountable Resources
- Responsibilities, Experience, Training

Verification and Measurement
- System functioning (deployed)
- Quality of processes (effectiveness) ... Results

Feedback & Improvement
- Basis for continuous improvement
OIMF - IOL’s Approach to Achieve Operational Excellence

Driver

Procedures, Practices & Systems

Evaluation

Result

Management Leadership Commitment and Accountability

- Risk assessment and management
- Facilities design and construction
- Information/documentation
- Personnel training
- Operations and maintenance
- Management of change
- Third-party services
- Incident investigation and analysis
- Community awareness and emergency preparedness

Operations Integrity Assessment and Improvement

Operational Excellence
### IOL’s Matrix for Risk Categorization

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<th>CONSEQUENCE</th>
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<th>B</th>
<th>C</th>
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- **A** represents higher risk
- **B** represents intermediate risk
- **C** represents lower risk

**Note:** The matrix shows the categorization of risks based on consequence and probability.
IOL’s HAZOP Review Process

Process
- Proactive, structured, process driven
- Five-Year Incident History

Conducted by a Team of Experts
- Lead by a trained, certified Risk Assessment facilitator.

Scenario based
- Risks are analyzed/categorized using IOL’s Risk Matrix.

Gap Closure
- Documented and stewarded
Imperial Oil’s Safety Evolution
Leadership Drives Results

Vast expectations with half-vast programs

ILCI 5 Star Program
Chemicals Safety Mgmt. Practices
OIMF developed (Made in Canada!)
OIMS developed with significant variance
OIMS refocused to reflect both process and effectiveness
Human Factors introduced
Nobody Gets Hurt

Employee Lost-time Injury Rate